$462,575,000*

Massachusetts Department of Transportation
Metropolitan Highway System Revenue Refunding Bonds (Subordinated)
Commonwealth Contract Assistance Secured
2018 Series B

Phase Two: De-Risking Strategies for the Variable Rate Bond and Swap Portfolios

Board of Directors Meeting

David W. Pottier, Chief Financial Officer

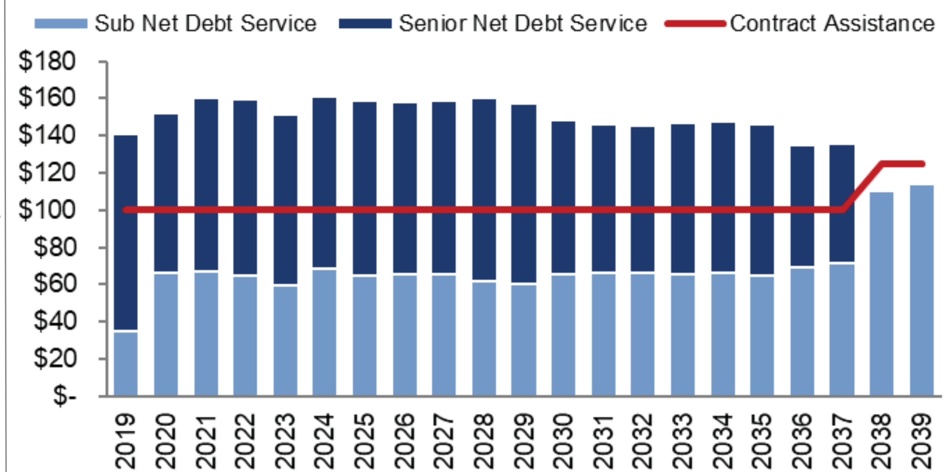
September 17, 2018

* Preliminary, subject to change.

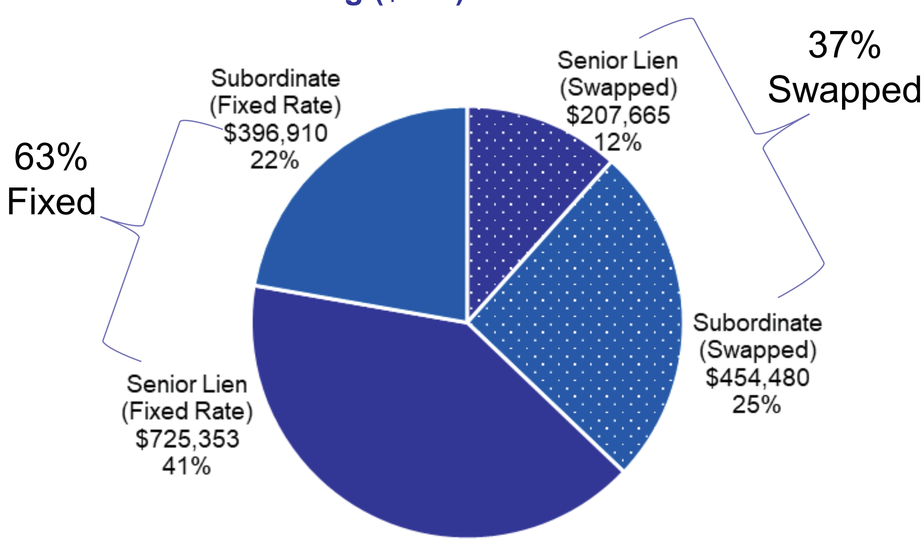
Current MHS Debt Profile - Overall

- There are $933.0 million of Senior and $851.4 million Subordinate Lien bonds outstanding ($860.5 million projected upon completion of the 2018 Series B refunding)
  - Debt service increases slightly to pay for swap termination costs in addition to the refunded bonds
- All MHS debt is either fixed rate or swapped to fixed
- Capital structure is relatively level through 2029 (after accounting for DSRF releases) and begins to decline thereafter
- Capital structure fully amortizes by 2039
- Senior DSRF currently totals $109.6 million
- Subordinate DSRF totals $22.580 million (after refunding)

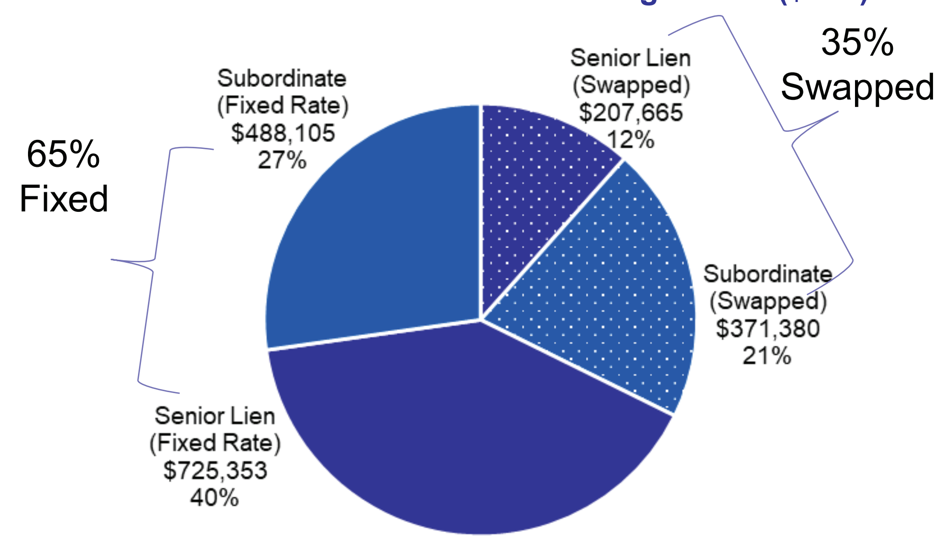
MHS Outstanding Net Debt Service by Lien[1] ($mm)



MHS Debt Outstanding ($000)



MHS Pro Forma Debt with 2018B Refunding Bonds ($000)



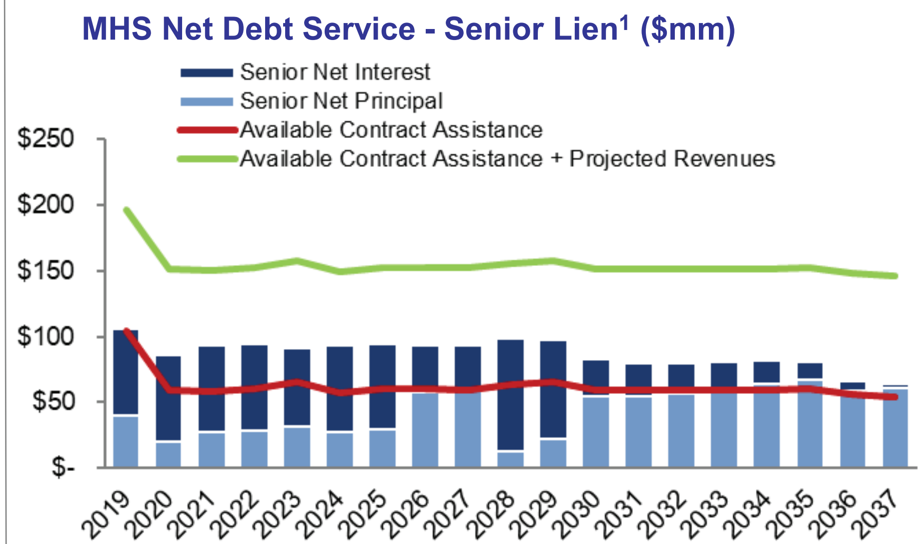
1 Includes estimated liquidity and remarketing costs of 0.75% for Senior and Subordinate variable rate bonds. Debt service is net of the Debt Service Fund Forward Delivery Agreement, assumed Debt Service Reserve Fund earnings of 1.50% and corpus releases in 2023, 2029, 2036 and 2037 for the Senior Lien and annual releases starting in 2030 for the Subordinate Lien.

massDOT
Massachusetts Department of Transportation

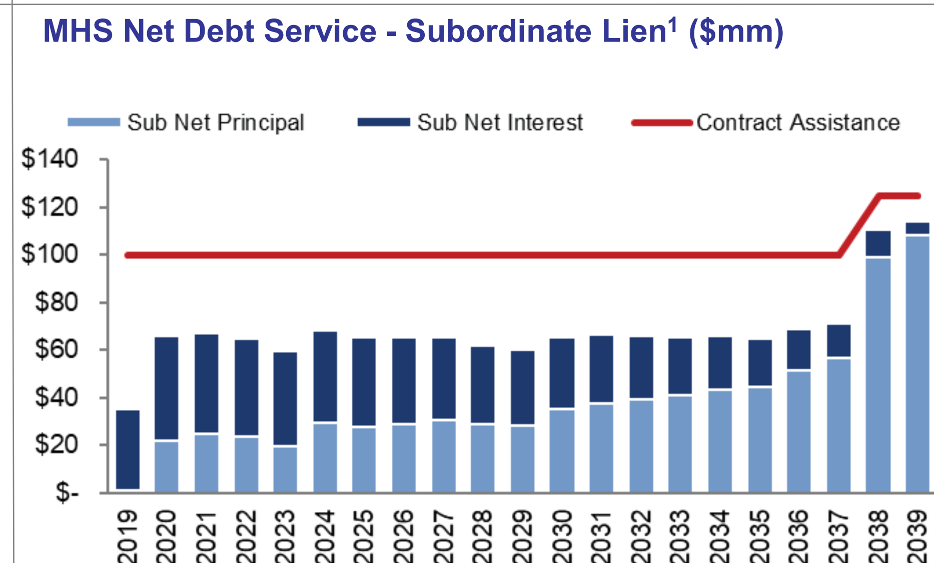
September 17, 2018

Current MHS Debt Profile - Senior and Subordinate Liens

- The Senior Lien is partially covered by a $25 million pledge of Commonwealth Contract Assistance plus the excess Commonwealth Contract Assistance transferred from the Subordinate Lien
- Capital structure fully amortizes by 2037
- Senior DSRF currently totals $109.6 million
- Projected revenues cover additional net debt service requirements on the Senior Lien



- Commonwealth Contract Assistance is pledged to Subordinate Lien and covers 100% debt service in every year
- Subordinate Lien debt service is expected to remain well below Dedicated Contract Assistance every year
- Capital structure fully amortizes by 2039
- Subordinate DSRF totals $22.580 million (after refunding)



1 *Includes estimated liquidity and remarketing costs of 0.75% for Senior and Subordinate variable rate bonds. Debt service is net of the Debt Service Fund Forward Delivery Agreement, assumed Debt Service Reserve Fund earnings of 1.50% and corpus releases in 2023, 2029, 2036 and 2037 for the Senior Lien and annual releases starting in 2030 for the Subordinate Lien.*

MHS Outstanding VRDB Debt and Swap Portfolios

Current Outstanding Swap Portfolio

Outstanding Swaps as of 8/1/2018

#	Counterpar	Notional	Pay	Current Pay Rate (%) [1]	Receive	Current Receive Rate (%) [1]	Current Net Rate (%)	Effective Date	Maturity Date	Hedged Bonds	MTM [1]
1	UBS AG	207,665,000	4.750%	4.750%	68% of 1M LIBOR	1.405%	3.345%	07/01/08	01/01/37	2010 SR A-1 & A-2	-77,135,000
2	UBS AG	83,100,000	4.875%	4.875%	68% of 1M LIBOR	1.403%	3.472%	01/01/08	01/01/37	2010 SUB. A-2	-28,220,000
3	UBS AG	371,380,000	4.750%	4.750%	68% of 1M LIBOR	1.403%	3.347%	01/01/09	01/01/39	2010 SUB. A-3- A-6	-147,005,000
4	JPM Chase	100,000,000	SIFMA	1.450%	67% of 3M LIBOR	1.569%	-0.119%	10/01/02	07/01/29	N/A	-2,080,000
Total		762,145,000									-254,440,000

Current Outstanding MHS Variable Rate Debt Portfolio

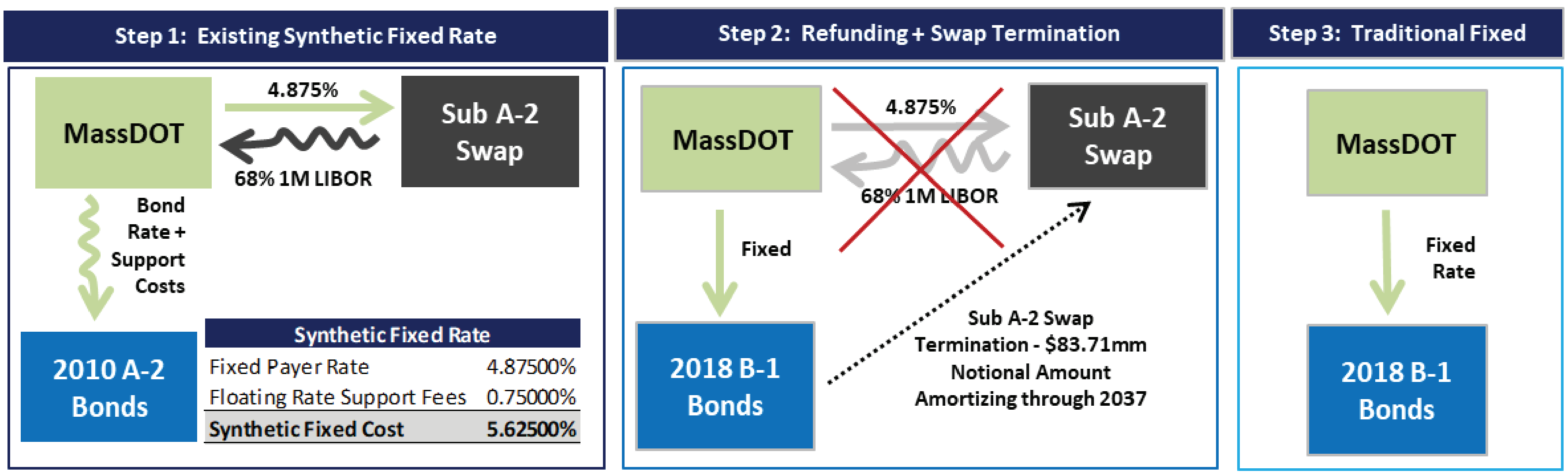
Detailed Summary of Variable Rate Debt as of 8/1/2018

Series	Par Amount	Bond Maturity	Mode	Provider	Expiration	Remaining Term	Bond Maturity	Current Rate [1]	Support Costs/ DP Spread	Tax Gross Up	All-in Variable Rate	Total Synthetic Fixed Rate
Metropolitan Highway System (Senior)												
2010 Series A-1	$ 100,000,000	1/1/37	VRDB LOC	Citibank	5/27/19	0.82	1/1/37	1.44%	0.42%	-	1.86%	5.21%
2010 Series A-2	$ 107,665,000	1/1/37	VRDB LOC	Barclays	5/27/20	1.82	1/1/37	1.37%	0.46%	-	1.83%	5.18%
Metropolitan Highway System (Subordinated)												
2010 Series A-2	83,100,000	1/1/37	VRDB LOC	Helaba	4/12/21	2.70	1/1/37	1.36%	0.31%	-	1.67%	5.14%
2010 Series A-3	92,845,000	1/1/39	VRDB LOC	Helaba	4/12/20	1.70	1/1/39	1.56%	0.32%	-	1.88%	5.23%
2010 Series A-4	92,845,000	1/1/39	Direct Purchase	BofA	5/17/19	0.79	1/1/39	1.40%	0.70%	0.45%	2.56%	5.91%
2010 Series A-5	92,845,000	1/1/39	Direct Purchase	BofA	5/15/20	1.79	1/1/39	1.40%	0.80%	0.47%	2.68%	6.03%
2010 Series A-6	92,845,000	1/1/39	VRDB SLOC	SMBC	4/12/19	0.70	1/1/39	1.54%	0.26%	-	1.80%	5.15%
Total	**$ 662,145,000**											

[1] Based on August 8, 2018 rates, subject to change.

2010 Series A-2 Refunding & Swap Termination

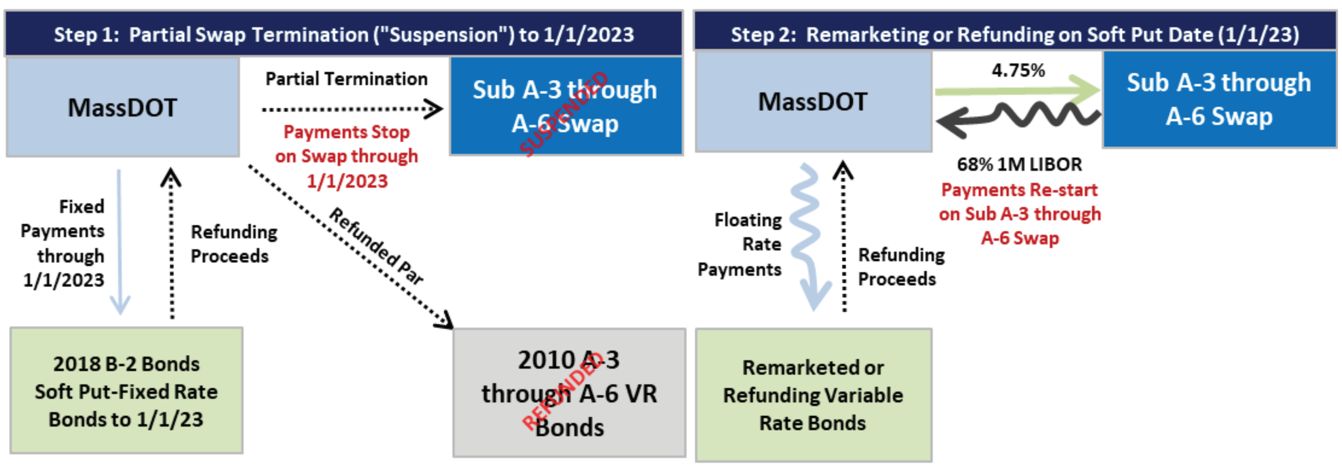
- Proposed financing structure: traditional fixed-rate current refunding of Subordinated 2010 Series A-2 and termination of associated UBS swap
  - Issue fixed rate refunding bonds: $91,195,000[1] Revenue Refunding Bonds (Subordinated) Commonwealth Contract Assistance Secured, 2018 Series B-1
    - Refund variable rate bonds: $83,100,000 Subordinated Variable Rate Demand Obligations 2010 Series A-2 ("2010 A-2 Bonds")
    - Terminate $83,100,000 of notional amount of UBS swap associated with 2010 A-2 Bonds
    - Projected to generate dis-savings of $6 million[1] on net present value basis
    - Overall transaction projected to generate approximately breakeven NPV savings



[1] Based on August 8, 2018 rates, subject to change.

2010 Series A-3 through A-6 Refunding & Swap Termination

- Proposed financing structure: soft put bond current refunding of the Subordinated 2010 Series A-3 - A-6 Bonds and suspend the associated UBS swap
  - Issue soft put refunding bonds: $371,380,000[1] Revenue Refunding Bonds (Subordinated) Commonwealth Contract Assistance Secured, 2018 Series B-2 with 1/1/2023 Soft Put Date
    - Refund variable rate bonds: $371,380,000 Subordinated Variable Rate Demand Obligations 2010 Series A-3, A-4, A-5 and A-6 (“2010 A-3 through A-6 Bonds”)
    - Partially Terminate $371,380,000 of notional amount of UBS swap associated with 2010 A-3 through A-6 Bonds and suspend (turn off) payments on the swap through the Soft Put Date
    - Pay fixed rates on the 2018 Series B-2 Bonds through the Soft Put Date
    - Remarket 2018 Series B-2 Bonds or refund with variable rate bonds on Soft Put Date when swap reactivates and payments on swap restart
  - Novate 2010 Series A-3 through A-6 swap to new counterparty
  - Projected to generate savings of $7 million[1] on net present value basis

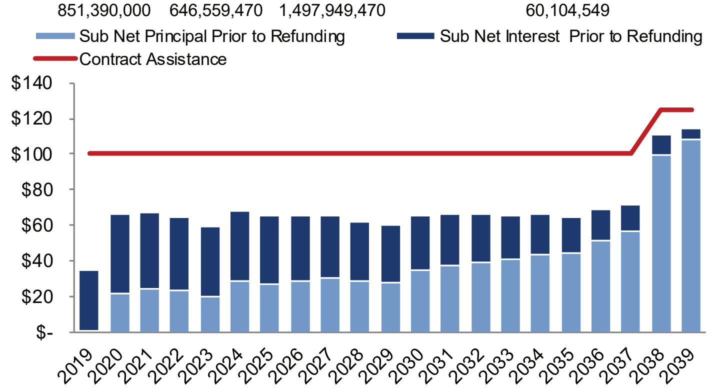


[1] Based on August 8, 2018 rates, subject to change. A full termination of the Subordinated 2010 A-3 – A-6 swap is estimated to produce dis-savings (cost) of nearly $37 million.

Current vs. Projected MHS Debt Profile - Subordinate Lien

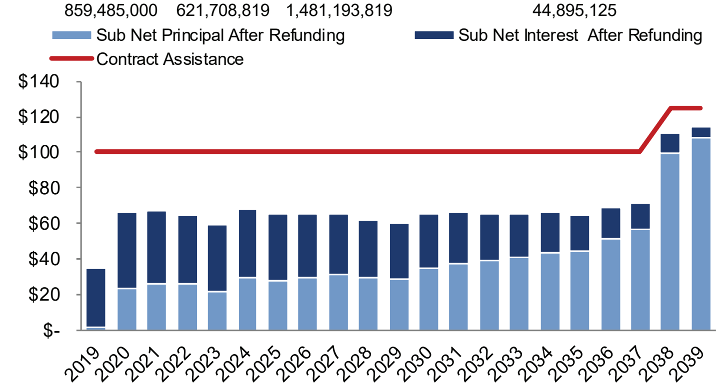
Subordinate Lien Debt Service Prior to Refunding

FY	Subordinate Principal Prior to Refunding[1]	Subordinate Interest Prior to Refunding[1]	Subordinate Debt Service Prior to Refunding[1]	Dedicated Contract Assistance	Additional Offsets to Subordinate Debt Service[1]	Coverage by Contract Assistance
			A	B	C	D = (B + C) / A
2019	855,000	43,851,775	44,706,775	100,000,000	9,713,533	2.5
2020	22,155,000	45,789,328	67,944,328	100,000,000	1,913,513	1.5
2021	25,260,000	43,965,124	69,225,124	100,000,000	1,996,481	1.5
2022	24,420,000	42,491,675	66,911,675	100,000,000	1,945,319	1.5
2023	20,190,000	41,270,675	61,460,675	100,000,000	1,782,120	1.7
2024	29,950,000	40,261,175	70,211,175	100,000,000	2,054,241	1.5
2025	28,280,000	38,763,675	67,043,675	100,000,000	2,005,258	1.5
2026	29,880,000	37,349,675	67,229,675	100,000,000	2,032,516	1.5
2027	31,545,000	35,855,675	67,400,675	100,000,000	2,060,467	1.5
2028	29,575,000	34,298,425	63,873,425	100,000,000	1,966,295	1.6
2029	29,065,000	32,840,275	61,905,275	100,000,000	1,922,528	1.6
2030	35,935,000	31,387,025	67,322,025	100,000,000	1,846,022	1.5
2031	38,310,000	29,461,719	67,771,719	100,000,000	1,402,597	1.5
2032	40,020,000	27,451,813	67,471,813	100,000,000	1,416,029	1.5
2033	41,830,000	25,353,469	67,183,469	100,000,000	1,612,649	1.5
2034	44,590,000	23,146,563	67,736,563	100,000,000	1,686,005	1.5
2035	45,545,000	20,793,438	66,338,438	100,000,000	1,577,404	1.5
2036	54,195,000	18,399,156	72,594,156	100,000,000	3,599,650	1.4
2037	59,790,000	15,403,813	75,193,813	100,000,000	3,890,400	1.4
2038	105,000,000	12,100,000	117,100,000	125,000,000	6,584,640	1.1
2039	115,000,000	6,325,000	121,325,000	125,000,000	7,096,880	1.1
	851,390,000	646,559,470	1,497,949,470		60,104,549	



Subordinate Lien Debt Service After Refunding

FY	Subordinate Principal After Refunding[1]	Subordinate Interest After Refunding[1]	Subordinate Debt Service After Refunding[1]	Dedicated Contract Assistance	Additional Offsets to Subordinate Debt Service[1,2]	Coverage by Contract Assistance
			A	B	C	D = (B + C) / A
2019	1,355,000	34,262,814	35,617,814	100,000,000	675,336	3.2
2020	24,015,000	43,848,479	67,863,479	100,000,000	1,837,726	1.5
2021	27,195,000	41,949,875	69,144,875	100,000,000	1,920,694	1.5
2022	26,455,000	40,379,676	66,834,676	100,000,000	1,869,531	1.5
2023	22,325,000	39,056,926	61,381,926	100,000,000	1,706,333	1.7
2024	30,410,000	39,723,300	70,133,300	100,000,000	1,978,454	1.5
2025	28,765,000	38,202,800	66,967,800	100,000,000	1,929,471	1.5
2026	30,375,000	36,764,550	67,139,550	100,000,000	1,956,729	1.5
2027	32,060,000	35,245,800	67,305,800	100,000,000	1,984,680	1.5
2028	30,105,000	33,662,800	63,767,800	100,000,000	1,890,508	1.6
2029	29,515,000	32,178,150	61,693,150	100,000,000	1,846,741	1.7
2030	35,785,000	30,702,400	66,487,400	100,000,000	1,243,403	1.5
2031	38,095,000	28,838,750	66,933,750	100,000,000	781,128	1.5
2032	39,740,000	26,896,500	66,636,500	100,000,000	774,288	1.5
2033	41,475,000	24,872,000	66,347,000	100,000,000	949,848	1.5
2034	44,155,000	22,745,750	66,900,750	100,000,000	1,001,072	1.5
2035	45,020,000	20,480,500	65,500,500	100,000,000	868,984	1.5
2036	53,575,000	18,182,000	71,757,000	100,000,000	2,866,720	1.4
2037	59,065,000	15,290,750	74,355,750	100,000,000	3,131,960	1.4
2038	105,000,000	12,100,000	117,100,000	125,000,000	6,584,640	1.1
2039	115,000,000	6,325,000	121,325,000	125,000,000	7,096,880	1.1
	859,485,000	621,708,819	1,481,193,819		44,895,125	



Adjusted Gross Savings

FY	Subordinate Debt Service Prior to Refunding	Subordinate Debt Service After Refunding	Difference
2019	34,993,242	34,942,479	50,763
2020	66,030,814	66,025,752	5,062
2021	67,228,643	67,224,181	4,462
2022	64,966,356	64,965,145	1,212
2023	59,678,555	59,675,593	2,962
2024	68,156,934	68,154,846	2,088
2025	65,038,417	65,038,329	88
2026	65,197,159	65,182,821	14,338
2027	65,340,208	65,321,120	19,088
2028	61,907,130	61,877,292	29,838
2029	59,982,747	59,846,409	136,338
2030	65,476,003	65,243,997	232,006
2031	66,369,122	66,152,622	216,500
2032	66,055,784	65,862,212	193,572
2033	65,570,820	65,397,152	173,668
2034	66,050,557	65,899,678	150,879
2035	64,761,033	64,631,516	129,517
2036	68,994,506	68,890,280	104,226
2037	71,303,412	71,223,790	79,622
2038	110,515,360	110,515,360	0
2039	114,228,120	114,228,120	0
	1,437,844,921	1,436,298,694	1,546,227

1 *Includes estimated liquidity and remarketing costs of 0.75% for Senior and Subordinate variable rate bonds. Debt service is net of the Debt Service Fund Forward Delivery Agreement, assumed Debt Service Reserve Fund earnings of 1.50% and corpus releases.*

2 *Includes $9.04 million of funds on hand in the debt service fund + $5.05 million released from the Basis Reserve Fund.*

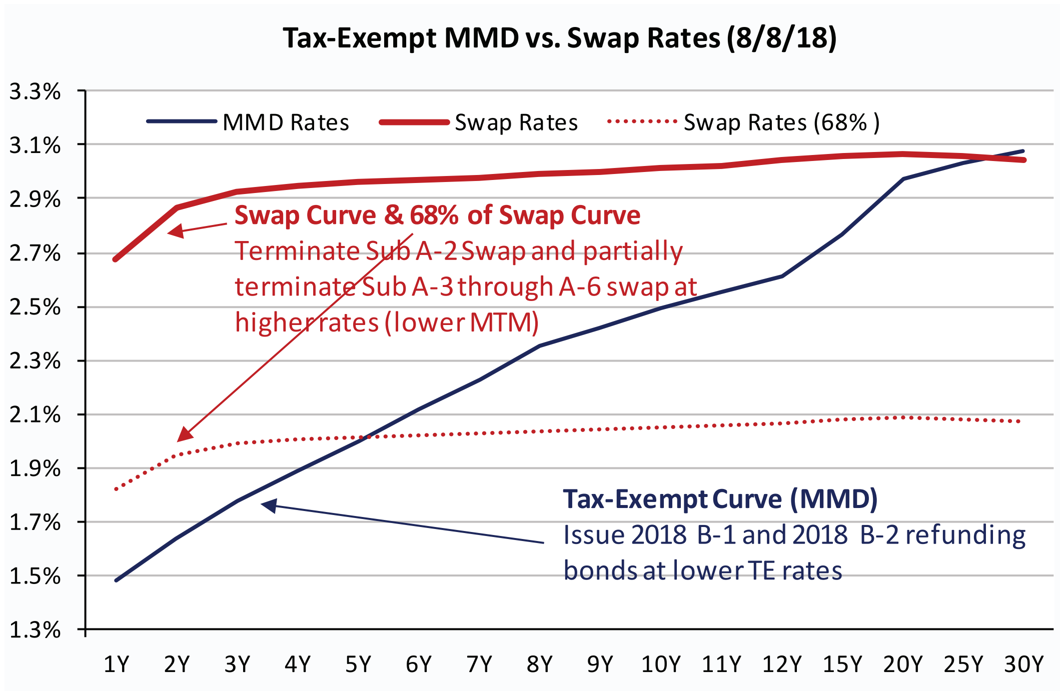
Transaction Highlights

- Swap termination costs paid for from combined savings on refunding transactions
- Reduction of $83.1 million in outstanding swap notional amount
- Combined reduction of $68.315 million in negative mark-to-market (MTM) on swap portfolio's total $254.44 million MTM (27%) at no cost to MassDOT on net present value basis
- Refunding economics primarily impacted by:
  - Relationship between benchmark tax-exempt MMD rates and taxable LIBOR swap rates
  - Credit spreads on i) fixed rate refunding bonds and ii) variable rate refunded bonds
  - Swap termination discounts provided by UBS
- Transaction meets Risk Management (§ 8) and Refunding (§ 14) guidelines of MassDOT's Debt Issuance and Management Policy[2]

Refunding Economics Driven by Tax-Exempt vs. LIBOR Rates

- MMD rates drive the benchmark fixed interest rate on the refunding bonds and LIBOR swap rates drive the cost on the swap termination and suspension
- Under current market conditions, the most efficient part of the curve is inside of 5-years

Tax-Exempt MMD vs. Swap Rates (8/8/18)			
Tenor	MMD Rates	Swap Rates	Swap Rates (68%)
1Y	1.480%	2.676%	1.820%
2Y	1.640%	2.867%	1.950%
3Y	1.780%	2.929%	1.992%
4Y	1.890%	2.950%	2.006%
5Y	2.000%	2.960%	2.013%
6Y	2.120%	2.970%	2.019%
7Y	2.230%	2.979%	2.026%
8Y	2.350%	2.991%	2.034%
9Y	2.420%	3.002%	2.042%
10Y	2.490%	3.017%	2.051%
11Y	2.550%	3.025%	2.057%
12Y	2.610%	3.040%	2.067%
15Y	2.770%	3.058%	2.079%
20Y	2.970%	3.067%	2.086%
25Y	3.030%	3.057%	2.079%
30Y	3.080%	3.044%	2.070%



massDOT
Massachusetts Department of Transportation
September 17, 2018

Overview of Soft Put Bonds

- Soft put bonds are long-term bonds mirroring the maturities of the VRDBs with a nearer term "put date"
- Soft put bonds pay a fixed rate through the put date (4 years as structured herein) and then the bonds are remarketed back into variable rate mode or refinanced
  - The bonds are considered variable rate bonds as the interest rate is undetermined from the put date until final maturity
  - The documents will provide that the bonds can be remarketed into multiple modes (weekly, monthly, etc.)
  - On the soft put date MassDOT can establish a letter of credit or standby bond purchase agreement and remarket the bonds back into weekly variable rate mode (as is currently the case) when the swap reactivates
  - There is a 6-month call feature so MassDOT can begin to remarket or refinance the bonds well in advance of the put date
- By utilizing a "soft" put, bond owners do not have the ability to put the bond back to MassDOT forcing principal payments prior to final maturity in the event of a failed remarketing or refinancing

Overview of Soft Put Bonds

- Upon a failed remarketing or refinancing (e.g., there is no access to the market for any reason), penalty rates would apply (as is currently the case), though the penalty rates are different from the existing VRDBs
  - Soft put example: upon a failed remarketing of 1-90 Days = 70% 1ML + 2.50%; 91-180 Days = Greater of: i) 70% 1ML + 5.00%; or ii) 7.50%; thereafter Maximum Rate (10%)
    - Penalty rates based on current rates:
      - 1-90 days = 3.994%
      - 91-180 days = 7.500%
      - 181 days + = 10.000%
  - Current VRDB example (from Sub A-4 and A-5): after 90 days of failed facility renewal/replacement, **principal paid quarterly over 3-year term plus interest** paid at the higher of (i) the Prime Rate in effect at such time plus one percent (1.0%), (ii) the Federal Funds Rate in effect at such time plus three percent (3.0%), (iii) the LIBOR Rate in effect at such time plus five percent (5.0%) and (iv) seven and one half of one percent (7.5%)
    - Penalty rate based on current rates = 7.5%
  - **Potential max penalty rates/terms apply to both structures if a liquidity/credit facility cannot be renewed or replaced upon expiration (VRDBs) or if a facility cannot be established on put date (soft put bonds)**
    - **Max rate in soft put structure = 10%, no principal acceleration**
    - **Max rate in VRDB structure = 20% + principal accelerated over 3- or 5-year term**

Existing VRDBs vs. Soft Put Bonds - Key Risk Comparison

Material Risks	Description of Risk	Existing VRDBs $371.380 million par amount 2010 Series A-3, A-4, A-5, A-6	Soft Put Bonds $371.380 million par amount 2018 Series B-2	Risk Impact
Key Risk Profile				
Remarketing Risk	Possibility that the bonds cannot be remarketed	➢ Risk currently exists, each of the four VRDBs are remarketed weekly	➢ Eliminated through put date, similar thereafter	**Positive through put date Neutral after put date**
Renewal, replacement or new LOC/SBPA Facility Risk	Possibility that a liquidity facility (Standby Bond Purchase Agreement) or credit facility (Letter of Credit) cannot be renewed or entered into	➢ LOC/SBPA facilities would have to be renewed or replaced when they expire ➢ Two series expire in 2019 and two in 2020	➢ A new LOC/SBPA would need to be entered into on soft put date of 1/1/2023 ➢ LOC/SBPA facility can be entered into anytime 6 months prior to put date	**<u>Existing VRDBs</u> - two series, half of the $371.38mm portfolio, remarketed on two dates (more frequent, smaller amounts)** **<u>Soft put bonds</u> - one series, full $371.38mm, remarketed on a single date (less frequent, larger amount)**
Refinancing Risk	Possibility that the bonds cannot be refinanced with refunding bonds	➢ Risk currently exists	➢ Similar risk	**Positive through put date Neutral after put date**
Economic Risk Profile				
Failed remarketing	A market or other event prohibiting MassDOT from renewing, replacing or entering into a new LOC or SBPA	➢ Penalty rates apply ➢ Principal repayment is accelerated over 3- or 5-year term	➢ Penalty rates apply ➢ Principal is not required to be paid prior to scheduled maturity	**Penalty rate on existing VRDBs could be lower or higher than soft put bonds based on formulas** **VRDBs require accelerated principal repayment prior to maturity, soft put bonds do not** **VRDB Max Rate=20%** **Soft put bond Max Rate=10%**
Failure to refinance	A market or other event prohibiting MassDOT from issuing refinancing bonds	➢ Similar to failed remarketing	➢ Similar to failed remarketing	

Principal repayment accelerated over 3 - or 5 years

Principal not required to be paid

Overview of Novation

- A swap novation means an existing interest swap is moved from the existing counterparty to one or more new counterparties
- As a part of the suspension of the Subordinated A-3 through A-6 Swap, UBS would require that the remaining portion of the swap, reactivated on the soft put date, be novated to a new counterparty
  - UBS is no longer an active swap counterparty in the municipal derivative sector and over the last several years has expressed interest in novating the swaps
- Under a request for responses conducted in October 2017, MassDOT gathered terms, pricing and interest from banks within MassDOT's underwriter pool and received several responses
- We refreshed responses from the banks that expressed interest in their 2017 RFR responses, including terms and pricing, and received several responses
- Novating the Subordinated A-3 through A-6 Swap offers MassDOT the opportunity to improve certain terms on the swap, receive the economics of the refunding transaction and diversify counterparty exposure

Transaction Benefits

- **Continue MassDOT's objective of de-risking debt and swap portfolios**
- **Substitute variable rate debt with fixed rate debt**
- **Terminate and suspend swaps, eliminate $68.315 million (26.85%) of the swap's $254.44 million current mark-to-market ("MTM") exposure**
  - Termination payment funded out of tax-exempt refunding bond proceeds
- **UBS Discount on swap terminations**
- **Release between $5mm-$27.6mm from Basis Reserve, used to downsize refunding bonds**
- **Eliminates VRDB associated risks (only through 1/1/2023 for the 2010 A-3 through A-6 Bonds)**
  - No bank support required
  - No bank covenants
  - No renewal risk of SBPA or LOC agreements
  - No annual liquidity or remarketing fees
- **Eliminates swap associated risks (only through 1/1/2023 for the Sub A-3 through A-6 Swap)**
  - No basis risk: variable rates received on swap do not equal variable rates paid on bonds
  - No tax risk : change in tax rules or other factors increases variable rate costs
  - No forced termination risk upon a downgrade (Sub A-2 Swap only)
- **Creates additional credit capacity (fewer banks providing support on VRDBs)**
- **Opportunity to terminate the JPM Swap at no cost in right economic scenario**
  - $100 million notional amount, current MTM = negative $2.08 million
  - The refunding/UBS swap termination transaction highlighted herein has no impact on MassDOT's ability to terminate the JPM Swap, it can be terminated on its own or remain active

Transaction Considerations

- **Transaction is subject to market conditions**
  - Moderate to neutral savings
  - Relationship between tax-exempt MMD rates and taxable LIBOR swap rates
  - Credit spreads
  - UBS Discount
  - Negative savings at time of sale possible based on market conditions
- **Forego potential positive basis**
  - Basis risk is the difference between floating rates received on swaps based on LIBOR and payments made on bonds based on tax-exempt rates
  - Basis risk can be positive or negative
- **Forego call flexibility of VRDBs**
- **Remarketing risk at Put Date**

1 *Estimated earnings on the released Basis Reserve Fund earnings of 1.50%.*

Disclosure Requirements

- The 2018 B Refunding Bonds are being issued as Subordinated Bonds under the Trust Agreement
- Contract Assistance Payments received under the 2009 Contract constitute "Dedicated Payments" under the Trust Agreement and are deposited directly to the Subordinated Debt Service Fund
  - On June 30, 2009, the Turnpike Authority and the Commonwealth entered into a Contract for Financial Assistance (the "2009 Contract") that obligates the Commonwealth to pay MassDOT $100 million per fiscal year
  - The obligation of the Commonwealth to make such payments to MassDOT constitutes a general obligation of the Commonwealth for which the full faith and credit of the Commonwealth are pledged
- The 2009 Contract Assistance Payments cover 100% of the debt service on all outstanding Subordinated Obligations, including the 2018 B Refunding Bonds
- Since the repayment source is solely from the 2009 Contract Assistance Payments, not revenues of MassDOT:
  - Ratings on the 2018B Refunding Bonds are based on the Commonwealth's General Obligation credit
  - The Commonwealth's most current Information Statement is incorporated by reference into the POS
  - The POS informs prospective purchasers that no financial or operating information about MassDOT is included in the POS because the Dedicated Payments pledged as security for the 2018 B Refunding Bonds are anticipated to exceed the total amount of debt service on Subordinated Obligations, including the 2018 B Refunding Bonds, in each year that the 2018 B Refunding Bonds are outstanding

Steps Taken to Date

- Citi selected as Senior Underwriter
- Negotiations with UBS on swap termination / novation
- Draft documents will be prepared by bond counsel and disclosure counsel for the refunding bonds
  - Preliminary Official Statement for Subordinated lien bonds scheduled for distribution following Board approval (October 22nd)
  - Commonwealth disclosure updated (appendix in POS)
  - Twelfth Supplemental Metropolitan Highway System Trust Agreement by and between MassDOT and The Bank of New York Mellon, as trustee
- Rating meetings ready to be scheduled: Moody's / S&P / Fitch (week of October 8th)

Transaction Schedule

- Sept. 17 – MassDOT Board Meeting, Overview
- Week of Oct. 8 – Ratings Agency Meetings
- Oct. 15 – F&A and MassDOT Board Meeting, Seek Transaction Approval
- Oct. 18 – Presentation and Vote by State Finance and Governance Board
- Oct. 22 – Mail POS
- Oct. 30/31 – Retail / Institutional Pricing
- Nov. 7 – Closing

Summary of Refunding - Subordinated Bonds[1]

Sources:	Full Termination of Swap (Subordinate A2)	Partial 4-year Termination of Swap (Subordinate A3-A6)	Total
Bond Proceeds:			
Par Amount	91,195,000.00	371,380,000.00	462,575,000.00
Premium	13,649,029.90	40,476,706.20	54,125,736.10
	104,844,029.90	**411,856,706.20**	**516,700,736.10**
Other Sources of Funds:			
Accrued Interest	1,687,968.75	7,350,229.17	9,038,197.92
Basis Reserve	5,052,480.00		5,052,480.00
	6,740,448.75	**7,350,229.17**	**14,090,677.92**
	111,584,478.65	**419,206,935.37**	**530,791,414.02**

Uses:	Full Termination of Swap (Subordinate A2)	Partial 4-year Termination of Swap (Subordinate A3-A6)	Total
Refunding Escrow Deposits:			
Cash Deposit	84,839,906.25	378,982,973.89	463,822,880.14
Delivery Date Expenses:			
Cost of Issuance	300,000.00	300,000.00	600,000.00
Underwriter's Discount	195,315.66	822,746.44	1,018,062.10
Net Swap Termination (Subordinate)	23,925,759.61	37,082,512.41	61,008,272.02
Net Swap Termination (Subordinate) - Off Market	2,318,409.94	2,010,968.67	4,329,378.61
	26,739,485.21	**40,216,227.52**	**66,955,712.73**
Other Uses of Funds:			
Contingency	5,087.19	7,733.96	12,821.15
	111,584,478.65	**419,206,935.37**	**530,791,414.02**

[1] Based on August 8, 2018 rates, subject to change.

Summary of Savings - Subordinated Bonds[1]

	Full Termination of Swap (Subordinate A2)	Partial 4-year Termination of Swap (Subordinate A3-A6)	Total
Dated Date	11/15/2018	11/15/2018	11/15/2018
Delivery Date	11/15/2018	11/15/2018	11/15/2018
Arbitrage Yield	5.364245%	5.364245%	5.364245%
Escrow Yield			
Value of Negative Arbitrage			
Bond Par Amount	91,195,000.00	371,380,000.00	462,575,000.00
True Interest Cost	3.579621%	2.294716%	2.831432%
Net Interest Cost	3.903887%	2.433266%	3.087779%
Average Coupon	4.998190%	5.020000%	5.010293%
Average Life	13.481	4.128	5.972
Weighted Average Maturity	13.541	4.128	6.038
Par amount of refunded bonds	83,100,000.00	371,380,000.00	454,480,000.00
Average coupon of refunded bonds	5.625000%	5.500000%	5.555830%
Average life of refunded bonds	14.889	4.128	6.096
Remaining weighted average maturity of refunded bonds	14.889	4.128	6.096
PV of prior debt	109,256,929.35	412,802,861.86	522,059,791.20
Net PV Savings	-6,006,320.56	7,084,332.83	1,078,012.27
Percentage savings of refunded bonds	-7.227823%	1.907570%	0.237197%
Percentage savings of refunding bonds	-6.586239%	1.907570%	0.233046%

[1] Based on August 8, 2018 rates, subject to change.

Metropolitan Highway System Outstanding Debt

Outstanding Debt as of 8/1/2018								
Series	**Indenture & Lien**	**Base CUSIP**	**Type**	**Avg Coup**	**Final Maturity**	**Ratings M/S/F**	**Amount Issued**	**Outstanding**
Metropolitan Highway System (Senior)								
1997 Series A CABs	MHS SR	576018	Fixed	5.62%	1/1/29	A3/A+ /A+	$ 42,006,617	$ 42,006,617
1997 Series C CABs	MHS SR	576018	Fixed	5.49%	1/1/23	A3/A+ /A+	89,136,006	51,286,175
2010 Series A	MHS SR	57563C	Variable	VR	1/1/37	See Below	207,665,000	207,665,000
2010 Series B	MHS SR	57563C	Fixed	4.98%	1/1/37	A3/A+/A+	882,310,000	632,060,000
Subtotal							**$1,221,117,623**	**$ 933,017,792**
Metropolitan Highway System (Subordinated)								
2010 Series A	MHS SUB	57563C	Variable	VR	1/1/39	See Below	454,480,000	454,480,000
2010 Series B	MHS SUB	57563C	Fixed	4.98%	1/1/35	Aa2/AA/AA+	261,220,000	261,220,000
2018 Series A	MHS SUB	57563C	Fixed	5.00%	1/1/29	Aa2/AA/AA+	135,690,000	135,690,000
Subtotal							**$ 851,390,000**	**$ 851,390,000**
Total							**$2,072,507,623**	**$1,784,407,792**